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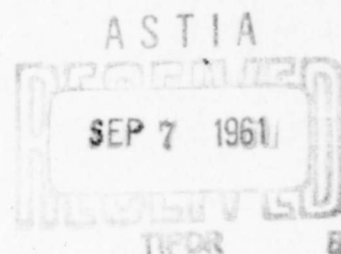
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**MEASUREMENT OF TEMPERATURE:
ADVANCED STATE-OF-THE-ART BIBLIOGRAPHY**

Joseph Pearlstein



15 August 1961



**DIAMOND ORDNANCE FUZE LABORATORIES
ORDNANCE CORPS • DEPARTMENT OF THE ARMY**

WASHINGTON 25, D. C.

**ORDNANCE CORPS
DIAMOND ORDNANCE FUZE LABORATORIES
WASHINGTON 25, D. C.**

**Robert W. McEvoy, Lt Col
COMMANDING**

**W. S. Hinman, Jr.
TECHNICAL DIRECTOR**

The Diamond Ordnance Fuze Laboratories is a research, development, and engineering installation under the jurisdiction of the Chief of Ordnance.

The Diamond Ordnance Fuze Laboratories was established by the Ordnance Corps, Department of the Army, on 27 September 1953. The nucleus for these Laboratories was the personnel and facilities of the Ordnance Divisions of the National Bureau of Standards.

Typical fields of activity at the Diamond Ordnance Fuze Laboratories include electronics, physics, mechanics, chemistry, and applied mathematics. Examples of topics under these activities are radiation and field studies, circuit devices, chemical problems, and special electron tube design. The programs include all phases from basic research to product design.

The mission of the Laboratories is to:

1. Conduct research and development in the various physical science and engineering fields directed toward meeting the military characteristics for fuzes and related items.
2. Provide consulting and liaison services as required in connection with the development, production, and use of items developed in the laboratories, or of related items.
3. Fabricate models and prototypes of items under development at the laboratories.
4. Perform developmental testing, including destructive testing of prototypes.
5. Serve as principal Nuclear Radiation Effects Research Group to investigate and determine susceptibility of Ordnance electronic materiel to nuclear weapons radiation environment, mechanisms of those effects, and ways and means of developing less susceptible materiel.
6. Maintain and operate for OCO a special library of technical and progress reports, prepared by Army, Navy, Air Force, and their contractors.
7. Perform the Industrial Engineering Support Mission for all proximity fuze items.
8. Administer the Department of the Army Regional Training Center for the District of Columbia, Virginia, and Maryland region.

DIAMOND ORDNANCE FUZE LABORATORIES
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by

Joseph Pearlstein

FOR THE COMMANDER:

Approved by



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DISTRIBUTION

ABSTRACT

A bibliography on temperature measurement and control is presented of selected papers given at the Fourth Symposium on Temperature Its Measurement and Control in Science and Industry held in Columbus, Ohio, March 27-31, 1961.

1. INTRODUCTION

This report is a bibliography of selected papers on temperature measurement and control given at the Fourth Symposium on Temperature Its Measurement and Control in Science and Industry held in Columbus, Ohio, March 27-31, 1961. The bibliography lists only the titles of the papers, the authors, and organizations that have conducted or sponsored the work. As an aid to the reader, the titles of the related papers listed in the bibliography are grouped under common headings, as shown in the table of contents. Although excellent summaries of all the papers are given in a 115-page Program*, it is felt that this selected bibliography will have value as a rapid guide for surveying the current state-of-the-art on temperature measurement and control in areas of interest to the U. S. Army Ordnance Corps.

This is one of a series of reports that have been issued in conformance with the requirements of an Ordnance Corps project established at DOFL for the dissemination of information in the "transducer or phenomena areas of direct interest to the Ordnance Corps."

A list of reports that have been issued under the Ordnance Corps Transducer Project at DOFL is given in the appendix.

* Copies of the Program (Temperature Its Measurement & Control in Science & Industry, Columbus, Ohio, March 27-31, 1961) were furnished to all those who registered for attendance at the Symposium. Additional copies of the Program may be purchased for \$5.00 per copy from the American Institute of Physics, 335E. 45 Street, New York 17, New York.

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Electron Temperature Measurements Above 100,000°K Using Radiation at the Electron Cyclotron Frequency, W. B. Ard, Jr., University of Florida.

3. APPENDIX

List of DOFL Transducer Reports & Technical Memoranda

(Projects 30330 & 30331)

TR-752, A Transducer Information Program for Ordnance, J. Pearlstein,
1 October 1959 (AD 227969)*

TR-753, Searching the Literature for Transducer Information
Part I. A Guide to the Literature, J. Pearlstein, 15 October 1959
(AD 228745)

R-300-60-1, Summary of Telemetry Transducer Symposium Sponsored
by the Telemetry Working Group of the Inter-Range Instrumentation
Group on 15 and 16 February 1960, J. Pearlstein **

TR-836, Measurement of Displacement, Velocity, and Acceleration:
Bibliography with Abstracts and Index, J. Pearlstein, 22 August 1960
(AD 243420)

TR-887, Bibliography of NBS Reports on Performance of Telemetry
Transducers and Calibration Methods, J. Pearlstein, 12 October 1960
(AD 248534)

TR-888, Notes on the Relationship of Temperature & Resistance,
J. Pearlstein, 1 December 1960 (AD 248392)

TR-898, Searching the Literature for Transducer Information
Part II. A Survey of the Field, J. Pearlstein, 1 December 1960
(AD 249131)

TR-727, Chemical Transducers, Proposed Program, R. H. Comyn,
28 May 1959

TR-814, A Guide to Selection and Use of Dynamic Pressure Transducers,
A. Hausner, September 1959 (AD 233007)

TR-869, Strong Shock Waves in "Polled" Barium Titanate Ceramic
Elements, P. S. Brody, 20 October 1960 (AD 248127)

TR-857, Accelerometer Measurements and Projectile Parameters,
H. J. Rosenberg, 17 November 1960 (AD 248339)

TR-917, Dielectric Constant of Barium Titanate at 100-kilobars,
P. S. Brody and R. H. Wittekindt, 15 March 1961 (AD 253786)

* Numbers in parentheses are ASTIA document numbers. Reference to
these numbers will facilitate the procurement of the reports from
ASTIA. ** Internal Distribution.

TR-922, Shape of the Current Output Pulse from a Thin Ferroelectric Cylinder under Shock Compression, R. H. Wittenkindt, 15 May 1961

TM-61-29, Visit to Redstone Arsenal Regarding DOFL Transducer Program, J. Pearlstein, 31 May 1961 **

TM-61-33, Visit to Springfield Armory Regarding DOFL Ordnance Transducer Program, J. Pearlstein, 24 May 1961 **

Proposal No. P 13-21, Research in Transducers, 7 June 1961

TM-61-34, Visit to Ballistic Research Laboratories Regarding DOFL Transducer Program, 1 June 1961, J. Pearlstein, 18 July 1961**

TR-968, Transducers: List of Current State-of-the-Art Projects, J. Pearlstein, 10 August 1961

- TR-969, # Measurement of Temperature: Advanced State-of-the-Art Bibliography, J. Pearlstein, 15 August 1961

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